

Science Olympiad 2017-2018 Season Thermodynamics Checklist / Data Sheet

Version 1.0

Event and Construction Requirements

- ☐ 1. Competitors construct only 1 device
- ☐ 2.a. Reference materials secured in 3 ring binder
- ☐ 2.a. Competitors bring up to 2 calculators
- ☐ 2.b. Device, 2 beakers and charts impounded
- ☐ 2.e. Competitors wear eye protection during testing
- ☐ 2.f. Competitors must be able to answer questions about the device per the Building Policy
- ☐ 3.a. No asbestos, mineral wool, fiberglass in device
- ☐ 3.b. Division B: device fits in 20.0 x 20.0 x 20.0cm box
- ☐ 3.c. Division C: device fits in 15.0 x 15.0 x 15.0cm box
- ☐ 3.d. Beaker can be inserted/removed from device
- ☐ 3.e. Device has ≥ 1.5 cm diameter hole above beaker
- ☐ 3.e. Top of hole < 12 cm inside beaker bottom
- ☐ 3.e. Hole must remain open during competition
- ☐ 3.f. Device has no energy sources
- ☐ 3.g. Device not significantly different from room temp

Bonus

Volume of ice water (ml) _____

Graphs / Tables (each item can get 0 – 2 points)

Data spans one variable range _____

At least 10 data points _____

Proper labeling (e.g. title, name, units) _____

Number of graphs/tables (x 0.5 points) _____

Labeled device picture/diagram _____

Part II: Written Test

Exam Score _____

Team Information

Team #: _____

Team Name: _____

Competitor Names: _____

Temperatures (in degrees Celsius)

Internal beaker temperature _____

External beaker temperature _____

Predicted temperature _____

Penalties

Competition violations(s)	Y
N	
Team didn't bring a device	Y
N	
DQed for unsafe operation	Y
N	
Construction violations corrected	Y
N	
Missed impound	Y
N	

Team Verification

4.h. I verify the event supervisor has reviewed with me my team's recorded device testing data.

Signature _____